

Bernese Motive and Goal Inventory in leisure and health sports (BMZI): further validation and updated version

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Introduction

Tailored interventions are called for in order to promote physical activity effectively. Sport- and exercise-related motives and goals are presently rarely included systematically in the design of interventions, despite the key role they play in wellbeing and adherence to exercise (Klusmann, Musculus, Sproesser & Renner, 2016; Sudeck, & Conzelmann, 2011). The Bernese Motive and Goal Inventory (BMZI) allows an individual diagnosis of the motives and goals in leisure and health sports in people in middle adulthood (35-year to 64-year-old). Since his development in 2011 (Lehnert, Sudeck, & Conzelmann, 2011), the questionnaire has been applied in research and practice several times. We have revealed certain indications that the questionnaire should be slightly modified. Thus, the present study aims 1) to cross-validate the original inventory with new samples in the area of leisure and health sports and 2) to examine the necessity of an updated version of the BMZI.

Table 1: Loadingmatrix of the updated BMZI

Items	Contact		Competition/ Performance		Distraction/ Catharsis		Body/ Appearance		Fitness		Health		Aesthetics	
	Sample A	Sample B	Sample A	Sample B	Sample A	Sample B	Sample A	Sample B	Sample A	Sample B	Sample A	Sample B	Sample A	Sample B
kon1	.88	.80												
kon2	.90	.79												
kon3	.91	.75												
kon4	.60	.67	.22											
kon5	.60	.58	.21	.20										.21
wetlei1			.79	.88										
wetlei2			.84	.75										
wetlei3			.70	.46										.21
ablkat1					.77	.78								
ablkat2					.70	.60								
ablkat3					.81	.71								
ablkat4					.69	.75								
figaus1							.81	.90					.22	
figaus2							.90	.88						
figaus3							.80	.68						
fitges1									.65	.73				
fitges2									.70	.62		.23		
fitges5									.70	.63	.22	.26		
fitges3											.67	.65		
fitges4											.65	.72		
fitges6									.25	.73	.56			
aes1													.78	.76
aes2													.84	.80

Table 2: Fit-Indices of the original and updated BMZI

	χ^2/df		CFI		SRMR		RMSEA (90% CI)	
	Sample A	Sample B	Sample A	Sample B	Sample A	Sample B	Sample A	Sample B
Original BMZI	1.63	2.11	.985	.987	.016	.012	.037 (.028-.046)	.036 (.030-.042)
Updated BMZI	1.52	2.38	.989	.985	.013	.011	.034 (.023-.044)	.040 (.034-.047)

Methods

The study is based on data from two samples: sample A consist of 448 employees of companies and authorities (M=48.8 years, 30% women). Sample B consists of 853 patients at the beginning of an inpatient medical rehabilitation program (M=52.9 years, 43% women). To explore options for further improvements of factorial validity we added 3 new items to distinguish between the facets Fitness and Health instead of a common factor Fitness/Health. We used Exploratory Structural Equation Modeling to validate the original and an updated version of the BMZI.

Results & discussion

The global model fit of the original BMZI as well as of the updated BMZI can be described as good (see Tab. 2). However, the updated version of the questionnaire had a better indicator reliability. These results indicate that the BMZI was further optimized. The questionnaire is recommended as an economical inventory for the individual diagnosis of important psychological preconditions of adherence to exercise in middle adulthood.